



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: May, Michael J. *et al.*

Serial No.: 09/847946

Filed: May 2, 2001

For: *ANTI-INFLAMMATORY COMPOUNDS AND  
USES THEREOF*

Attorney Docket No.: PPI-119

Group Art Unit: 1646

Examiner: Not Yet Assigned

RECEIVED

MAY 13 2003

TECH CENTER 1600/2900

Mail Stop DD  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22202

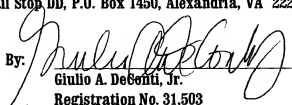
**Certificate of First Class Mailing (37 CFR §1.8(a))**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop DD, P.O. Box 1450, Alexandria, VA 22202 on the date set forth below.

May 2, 2003

Date of Signature and of Mail Deposit

By:

  
Giulio A. DeCenli, Jr.  
Registration No. 31,503  
Attorney for Applicants

**INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

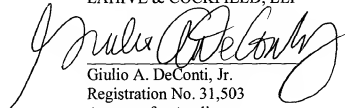
Applicants and their Attorney are aware of the following publications and information, listed on the attached PTO Form 1449, and in accordance with 37 CFR §1.97 hereby submit these publications for the Examiner's consideration. Reference ID Nos. A14, B3, B12, and C4 were cited in an International Search Report dated May 6, 2002 during the prosecution of PCT/US01/14346 which corresponds to the above referenced application. A copy of the report and each cited publication is enclosed.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publication is prior art. Moreover, Applicants understand that the Examiner will make an independent evaluation of the cited publications.

Under 37 CFR § 1.97(b)(3), no additional costs are believed to be due in connection with the filing of this disclosure. If, however, a first Office Action on the merits issues in this application bearing a mailing date prior to the date of this Information Disclosure Statement, please charge the appropriate fee as required under 37 CFR §1.17(p) to our Deposit Order Account No. 12-0080.

Respectfully submitted,

LAHIVE & COCKFIELD, LLP



Giulio A. DeConti, Jr.  
Registration No. 31,503  
Attorney for Applicants

28 State Street  
Boston, MA 02109  
(617) 227-7400

Date: May 2, 2003

GAD/AEM/MCL/MCA/kvj  
Enclosures



LAHIVE  
&  
COCKFIELD  
L L P

COUNSELLORS AT LAW  
28 STATE STREET  
BOSTON, MASSACHUSETTS 02109-1784  
TELEPHONE (617) 227-7400  
FAX (617) 742-4214  
lc@lahive.com

JOHN A. LAHIVE, JR. (1928-1997)  
THOMAS V. SMURZYNSKI  
RALPH A. LOREN  
GIULIO A. DECONTI, JR.  
ANN LAMPORT HAMMITTE  
ELIZABETH A. HANLEY  
AMY BAKER MANDRAGOURAS  
ANTHONY A. LAURENTANO  
KEVIN J. CANNING  
JANE E. REMILARD  
DAWN FORAN SMITH  
PETER C. LAURO  
DEBRA J. MILASINIC, Ph.D.  
DAVID J. RIKKERS  
DAVID R. BURNS  
JOHN S. CURRAN  
SEAN D. DETVIELER  
MEGAN E. WILLIAMS, Ph.D.

LISA M. DIROCCO  
HATHAWAY P. RUSSELL \*  
MARIA LACCOTRIPE ZACHARAKIS, Ph.D.  
VINCENT P. LOCCISANO  
MERIDETH C. ARNOLD  
DANIELLE L. HERRITT  
EUHOON LEE \*\*

SENIOR COUNSEL  
JAMES E. COCKFIELD

OF COUNSEL  
JEREMIAH LYNCH  
WILLIAM A. SCOFIELD, JR.  
SIBLEY P. REPPERT  
JEANNE M. DIORGIO  
CYNTHIA L. KANIK, Ph.D.

PATENT AGENTS  
THEODORE R. WEST  
SHAYNE Y. HUFF, Ph.D.  
CYNTHIA M. SOROOS  
PETER W. DINI, Ph.D.  
JONATHAN M. SPARKS, Ph.D.

TECHNICAL SPECIALISTS  
CATHERINE M. BISHOP  
JACOB G. WEINTRAUB  
CRISTIN E. HOWLEY, Ph.D.  
JILL ANN MELLO, Ph.D.  
DEBORAH L. NAGLE, Ph.D.

\* Admitted in TX only  
\*\* Admitted in CT only

1646

May 2, 2003

RECEIVED

MAY 13 2003

TECH CENTER 1600/2900

Mail Stop DD  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22202

Re: U.S. Patent Application No.: 09/847946  
For: *ANTI-INFLAMMATORY COMPOUNDS AND USES THEREOF*  
Inventors: May, Michael J. *et al.*  
Filed: May 2, 2001  
Our Ref. No.: PPI-119

Dear Sir:

I enclose herewith for filing in the above-identified application the following:

1. Information Disclosure Statement;
2. A copy of the International Search Report;
3. PTO Form 1449;
4. Copies of references cited in PTO Form 1449 (47); and
5. A Return Postcard.

No additional costs are believed to be due in connection with the filing of this Information Disclosure Statement. However, please charge any necessary fees in connection with the enclosed statement to our Deposit Order Account No. 12-0080. For this purpose, a duplicate of this sheet is attached.

I hereby certify that this correspondence is deposited with the United States Postal Service as first class mail in an envelope addressed to:  
Mail Stop DD, Commissioner for Patents, P.O. Box 1450,  
Alexandria, VA 22202 on:

May 2, 2003

Date

Giulio A. DeConti, Jr., Esq.  
Registration No. 31,503

Respectfully submitted,  
LAHIVE & COCKFIELD, LLP

Giulio A. DeConti, Jr.  
Attorney for Applicants  
Registration No. 31,503


APPLICANT FACSIMILE OF FORM PTO-1449  
REV. 7-80

U.S. DEPARTMENT OF  
COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DCKET NO

SERIAL NO.

PPI-119

09/847946

# LIST OF PUBLICATIONS CITED BY APPLICANT (Use several sheets if necessary)

APPLICANT

May, Michael J. et al.

FILING DATE

May 2, 2001

GROUP

1646

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A1	5,747,641	05/98	Frankel et al.	530	300	
	A2	5,804,374	09/98	Baltimore et al.	435	6	
	A3	5,804,604	09/98	Frankel et al.	530	324	
	A4	5,846,743	12/98	Janmey et al.	435	7.8	
	A5	5,851,812	12/98	Goeddel et al.	435	194	
	A6	5,888,762	03/99	Joliet et al.	435	69.1	
	A7	5,939,302	08/99	Goeddel et al.	435	194	
	A8	5,972,655	10/99	Marcu	435	69.1	
	A9	6,015,787	01/00	Potter et al.	514	12	
	A10	6,030,834	02/00	Chu et al.	435	325	
	A11	6,316,415 B1	11/01	Albrecht et al.	514	18	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	A12	WO 98/52614 A2,A3	11/98	WO				
	A13	WO 99/29721 A1	06/99	WO				
	A14	WO 00/01417 A1	01/00	WO				
	A15	WO 00/29427 A2,A3	05/00	WO				
	A16	WO 00/31235 A2,A3	06/00	WO				

## OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

	A17	Bower, B.S. et al. "Glucocorticoid reseau EGIII-like cellulose (partial sequence).", Database A Geneseq 032802, Accession NO: AAY06332 (6 Sept. 1999).
	A18	Chu, Z.-L. et al., "IKK $\gamma$ Mediates the Interaction of Cellular I $\kappa$ B Kinase with the Tax Transforming Protein of Human T Cell Leukemia Virus Type 1." <i>The Journal of Biological Chemistry</i> , Vol. 274, No. 22, pages: 15297-15300 (1999)
	A19	Delhase, M. et al., "Positive and Negative Regulation of I $\kappa$ B Kinase Activity Through IKK $\beta$ Subunit Phosphorylation." <i>Science</i> , Vol. 284, pages: 309-313 (1999)
	A20	Derossi, D. et al. "The third helix of the Antennapedia homeodomain translocates through biological membranes." <i>J. Biol. Chem.</i> Vol. 269, No. 14, pages: 10444-50 (1994).
	A21	DiDonato, J.A. et al., "A cytokine-responsive I $\kappa$ B Kinase that activates the transcription factor NF- $\kappa$ B." <i>Nature</i> , Vol. 388, pages: 548-554 (1997)
	A22	DiDonato, J.A. et al., "Mapping of the Inducible I $\kappa$ B Phosphorylation Sites That Signal Its Ubiquitination and Degradation." <i>Molecular and Cellular Biology</i> , Vol. 16, No. 4, pages: 1295-1304 (1996)

Examiner	Date Considered
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	



APPLICANT FACSIMILE OF FORM PTO-1449

U.S. DEPARTMENT OF  
COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

SERIAL NO.

PPI-119

09/847946

APPLICANT

May, Michael J. et al.

FILING DATE

May 2, 2001

GROUP

1646

# LIST OF PUBLICATIONS CITED BY APPLICANT (Use several sheets if necessary)

OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

B1	Ghosh, S. et al., "NF- $\kappa$ B and Rel Proteins: Evolutionarily Conserved Mediators of Immune Responses." <i>Annu. Rev. Immunol.</i> Vol. 16, pages: 225-60 (1998)
B2	Harhaj, E.W. et al., "IKK $\gamma$ Serves as a Docking Subunit of the I $\kappa$ B Kinase (IKK) and Mediates Interaction of IKK with the Human T-cell Leukemia Virus Tax Protein." <i>The Journal of Biological Chemistry</i> , Vol. 274, No. 33, pages: 22911-22914 (1999)
B3	Hatada, E.N. et al., "NF- $\kappa$ B and the innate immune response." <i>Curr. Opin. Immunol.</i> ; Vol. 12, No. 1, pages: 52-8 (2000)
B4	Ho, A. et al., "Synthetic protein transduction domains: enhanced transduction potential <i>in vitro</i> and <i>in vivo</i> ." <i>Cancer Res.</i> Vol. 61, No.2, pages: 474-7 (2001)
B5	Hu, Y. et al., "Abnormal Morphogenesis but Intact IKK Activation in Mice lacking the IKK $\alpha$ Subunit of I $\kappa$ B Kinase." <i>Science</i> , Vol. 284, pages: 316-320 (1999)
B6	Jin, D-Y. et al., "Role of Adapter Function in Oncoprotein-mediated Activation of NF- $\kappa$ B." <i>The Journal of Biological Chemistry</i> , Vol. 274, No. 25, pages: 17402-17405 (1999)
B7	Jin, D-Y. et al., "Isolation of Full-Length cDNA and Chromosomal Localization of Human NF- $\kappa$ B Modulator NEMO to Xq28." <i>Journal of Biomedical Science</i> , Vol. 6, pages: 115-120 (1999)
B8	Kopp, E. et al., "Inhibition of NF- $\kappa$ B by Sodium Salicylate and Aspirin." <i>Science</i> , Vol. 265, pages: 956-959 (1994)
B9	Li, Q. et al., "Severe Liver Degeneration in Mice Lacking the I $\kappa$ B Kinase 2 Gene." <i>Science</i> , Vol. 284, pages: 321-325 (1999)
B10	Lindgren, M. et al., "Cell-penetrating peptides." <i>Trends Pharmacol. Sci.</i> Vol. 21, No. 3, pages: 99-103 (2000).
B11	May, M.J. et al. "Rel/NF- $\kappa$ B and I $\kappa$ B proteins: an overview." <i>Cancer Biology</i> , Vol. 8, pages: 63-73 (1997)
B12	May, M.J. et al. "Selective inhibition of NF- $\kappa$ B activation by a peptide that blocks the interaction of NEMO with the I $\kappa$ B kinase complex." <i>Science</i> . Vol. 289, No. 5484, pages: 1550-4 (2000)
B13	May, M.J. et al. "Signal Transduction through NF- $\kappa$ B." <i>Immunology Today</i> , Vol. 19, No. 2, pages: 80-88 (1998)
B14	Mercurio, F. et al., "I $\kappa$ B Kinase (IKK)-Associated Protein 1, a Common Component of the Heterogeneous IKK Complex." <i>Molecular and Cellular Biology</i> , Vol. 19, No. 2, pages: 1526-1538 (1999)
B15	Regnier, C.H. et al., "Identification and Characterization of an I $\kappa$ B Kinase." <i>Cell</i> , Vol. 90, pages: 373-383 (1997)
B16	Rothwarf, D.M. et al., "IKK- $\gamma$ is an essential regulatory subunit of the I $\kappa$ B kinase complex." <i>Nature</i> , Vol. 395, pages: 297-300 (1998)
B17	Rudolph, D. et al., "Severe liver degeneration and lack of NF- $\kappa$ B activation in NEMO/IKK $\gamma$ -deficient mice." <i>Genes &amp; Development</i> , Vol. 14, pages: 854-862 (2000)
B18	Siebenlist, U. et al., "Structure, Regulation and Function of NF- $\kappa$ B." <i>Annu. Rev. Cell. Biol.</i> , Vol. 10, pages: 405-455 (1994)
B19	Takeda, K. et al., "Limb and Skin Abnormalities in Mice Lacking IKK $\alpha$ ." <i>Science</i> , Vol. 284, pages: 313-316 (1999)

Examiner	Date Considered
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	



U.S. DEPARTMENT OF  
COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO

SERIAL NO

**PPI-119**

09/847946

**APPLICANT**

May, Michael J. et al.

FILING DATE

May 2, 2001

GROUP

1646

#### LIST OF PUBLICATIONS CITED BY APPLICANT

(Use several sheets if necessary)

OTHERS (including Author, Title, Date, Pertinent Pages, Etc.)

**TECH CENTER 1600/2900**

Examiner

Date Considered

\*EXAMINER:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.